4. CAPABILITY ASSESSMENT

This section summarizes the results of the State Hazard Mitigation Plan Committee and other state agency efforts to develop policies, programs, and activities that directly or indirectly support hazard mitigation. It also provides information on resources and gaps in the state's infrastructure, as well as relevant changes in its laws since the last Plan Update, in order to suggest a mitigation strategy. Particularly, this section surveys expanded land use since the last update and gives an overview of coastal protection funding.

STATE POLICIES AND PROGRAMS

In this first subsection, the Plan describes and analyzes state laws, regulations, and policies, in addition to programs, related to hazard mitigation and development in hazard-prone areas. Legislation regarding hazard mitigation is too abundant to enumerate here, but includes directives from the Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP) and the Coastal Protection and Restoration Authority (CPRA). Programs related to development in hazard-prone areas include the following:

- Regulation of state-owned property by Facility Planning and Control (FPC)
- the National Flood Insurance Program (NFIP) and Community Rating System (CRS)
- the Statewide Flood Control Program
- the Coastal Protection and Restoration Authority (CPRA)
- the Uniform Construction Code
- the Land Acquisition Program
- the Scenic Rivers Program
- the Louisiana Coastal Resources Program (LCRP) and Coastal Use Permit (CUP)
- the Coastal Forest Conservation Initiative (CIAP)
- the Floodplain Management Association (FMA)

POLICIES

Louisiana has a number of mitigation-specific acts, plans, executive orders, and policies that lay out specific goals, objectives, and policy statements which already support or could support pre- and post-disaster hazard mitigation. Many of the ongoing plans and policies hold significant promise for hazard mitigation, and take an integrated and strategic look holistically at hazard mitigation in Louisiana to continually propose ways to improve it. Examples of existing documents include the following:

- Louisiana State Hazard Mitigation Plan

- Louisiana State Emergency Operations Plan
- Louisiana State Continuity of Operations Plan
- Integrated Ecosystem Restoration and Hurricane Protection: Louisiana's Comprehensive Master Plan for a Sustainable Coast (CPRA)
- Louisiana State Public Assistance Administrative Plan
- Louisiana State Uniform Construction Code Council (LSUCCC)

The Louisiana Homeland Security and Emergency Assistance and Disaster Act (LHSEADA) is the main legislation affecting preparedness, response, recovery, and mitigation programs in the state. Among its many functions, the LHSEADA aims related to mitigation are as follows:

- To reduce vulnerability of people and communities of this state to damage, injury, and loss of life and property resulting from natural or man-made catastrophes, riots, or hostile military or paramilitary action
- To authorize and provide for cooperation in emergency or disaster prevention, mitigation, preparedness, response, and recovery
- To authorize and provide for management systems embodied by coordination of activities relating to emergency or disaster prevention, mitigation, preparedness, response, and recovery by agencies and officers of this state, and similar state-local, interstate, and foreign activities in which the state and its political subdivisions may participate

The statues within this part of the LHSEADA that reference or apply to Hazard Mitigation include, but are not limited to, various definitions; the power of the governor; GOHSEP and the powers of its director; and Parish Homeland Security and Emergency Preparedness Agency. As authorized under the above referenced statutes, GOHSEP's Hazard Mitigation Section in its Disaster Recovery Division is responsible for administering the Hazard Mitigation Grant Program and the Non-Disaster Hazard Mitigation Assistance Grants. The Hazard Mitigation Section is managed by the State Hazard Mitigation Officer and a Hazard Mitigation Section Chief, and it conducts outreach to communities, technical assistance to applicants, and grants management to the sub-grantees of those grants. Sub-grantees include state agencies, local governments, federally recognized Native American tribes, and private non-profit organizations.

The largest number of the mitigation policies, programs, and activities undertaken by Louisiana state agencies occur within GOHSEP. However, the Louisiana Department of Transportation and Development (DOTD), Department of Natural Resources (DNR), Department of Environmental Quality (DEQ), the CPRA, the Division of Administration (DOA) and its constituent offices, and the Louisiana Floodplain Management Association (FMA) all have policies, programs, and activities specific to mitigation or that actively support hazard mitigation. Additional agencies and entities have programs that further support hazard mitigation activities in the state. Two specific examples of statewide policies for hazard mitigation are the Coastal Zone Boundary and the non-profit Center for Planning Excellence (CPEX) Coastal Land Use Toolkit.

Coastal Zone Boundaries attempt to preserve coastal communities and industries that rely on the ecosystem of the Gulf of Mexico. They require special permitting due to the proximity of delicate ecological processes. The permits are either approved or denied by the Office of Coastal Management Permits and Mitigation Division. Activities that will be required to apply for permits in the coastal zone are:

- Dredging
- Levee construction/maintenance
- Hurricane protection facilities
- Urban developments
- Energy development activities like exploration for oil/natural gas/geothermal/etc.
- Wastewater discharge
- Recreational developments, including marinas
- Drainage projects
- Anything to do with barrier islands

The Coastal Land Use Toolkit is a document made for public use by the non-profit CPEX, although it has not been officially adopted by any governmental entity yet. The Toolkit explains the national and local best management practices (BMPs) in coastal development for Louisiana on a range of scales. It also has recommendations based on geological land types. Strategies in the Toolkit include the following:

- Natural resource protection
- Wetland restoration
- Streetscape/parking lot design
- Maintaining networks of infrastructure
- Designing infrastructure in a resilient way while preserving local character

Specific zoning suggestions include the following:

- Elevation standards
- Impervious land cover limitations
- On-site design of elements to deal with stormwater management
- Erosion control standards

Some programs and policies, such as the ones just described, might use complementary tools to achieve a common end, but fail to coordinate with or support each other. Thus, coordination between state and local mitigation policies and programs is essential to hazard mitigation. This Plan will sketch a few of the numerous local policies and programs to suggest the range of policy types.

In East Baton Rouge Parish, local mitigation policies include a number of statements regarding flood-prone areas. For instance, the parish restricts off-site landfill in flood hazard areas and

requires minimum slab elevations based on those areas. Regarding floodways, the parish stipulates that nothing shall encroach on them unless professionals deem that development would not alter the water flow, but permits uses such as the following:

- Agricultural land use
- Nonstructural industry
- Public & private recreational uses
- Extraction of natural resources
- Public infrastructure as long as it doesn't encroach on the high water level area

The city of New Orleans is currently reviewing a comprehensive zoning ordinanace that will likely be adopted in 2014. The ordinance outlines and describes stormwater BMPs by function, suggesting that stormwater runoff should be detained, stored, infilitrated, and/or filtered using various, specific recommended BMPs. The ordinance also lays out planned development standards for environmentally sensitive development districts, restricting residential density to 6 units per acre. In non-residential areas, the ordinance gives a maximum floor area of 5,000 square feet per acre. It also gives design regulations requiring actions such as the following:

- Preserving scenic views
- 60% of site be for active or passive recreation
- Buildings developed in clusters
- Outlawing clear cuts of properties
- Protection of wildlife habitats
- Mitigation of negative impacts on wildlife after development

Other cities have their own zoning ordinances and flood area restrictions. For instance, the city of Mandeville has drainage overlay districts to require proposed buildings or structures to be located out of any area of periodic inundation to the greatest extent possible. If construction does proceed in such areas, vegetation disturbed must be restored fully before the project is complete. Parking anywhere should be kept out of inundation areas if possible, and natural drainageways cannot be culverted unless determined to be a public health problem.

Lake Charles has its own floodplain management regulations that restrict uses dangerous to health and safety in times of flood; control filling, grading, dredging, and other development which may increase flood damage; regulate flood barriers that will unnaturally divert flood waters or which may increase flood hazards to other lands; and compel structures in coastal high hazard areas have the bottom of the lowest part elevated to at least the base flood level and have breakaway walls (for certain types and locations).

In addition to the cities named above, other areas have progressive hazard mitigation policies, including Lafayette, which has a code similar to the EBR parish code, and Hammond, which has a new code under review before its adoption.

PROGRAMS

Many of the policies, programs, and activities undertaken by Louisiana agencies in mitigation occur within GOHSEP, whose programs (as well as the federal programs it administers) serve to actively reduce disaster-related losses in Louisiana. Additionally, state departments like DOTD, DNR, DEQ, the CPRA, the DOA, the LRA, and the FMA all have policies, programs, and activities specific to mitigation or that actively support hazard mitigation. Furthermore, other departments that have not all specifically been mentioned yet—such as the Department of Wildlife and Fisheries; the Department of Corrections; the Department of Health and Hospitals; the Department of Social Services; Department of Agriculture and Forestry; the Department of Insurance; Department of Public Safety; the Louisiana National Guard; and the LSU AgCenter—all have programs that provide support to hazard mitigation activities with regard to their own agency's purview in the state. The remainder of this subsection describes those programs.

Among these programs is the DOA's regulation of state-owned property through **Facility Planning Control (FPC)**. FPC is an effective mechanism for influencing the situation of state-owned facilities within hazard areas. The DOA regulation of state-owned property via capital outlay is effective because the funds are appropriated to FPC, and the design of the buildings is under that office's direction. For example, the FPC's location of new construction outside flood hazard areas and, as needed, in conjunction with new construction elevation above flood levels, represent an effective enhancement to the state's overall effort to mitigate risk through land development. As the building code authority for state-owned property, FPC also enforces the International Building Code for all state buildings, whether or not they are funded through capital outlay. As the central leasing authority for all state-owned property, FPC further enforces standards in the procurement of leases and has the authority to set the geographic limits for the bidding of leases (FPC does not make the lease payments). FPC has less control over decisions related to construction of state-owned facilities because such construction usually takes place on existing state-owned sites. Decisions for such facilities are largely driven by adjacency to existing facilities and similar functional concerns.

Another program related to hazard-prone areas is the **National Flood Insurance Program (NFIP) and Community Rating System (CRS)** facilitated in Louisiana by the DOTD. FEMA's NFIP is an extremely effective tool for encouraging local communities to regulate development in hazard areas. Every parish in Louisiana participates in the NFIP. Additionally, 39 Louisiana communities, accounting for approximately 80% of NFIP policies in the State of Louisiana, participate in the CRS. The CRS is an NFIP program that allows communities to lower the premiums charged to their citizens by going above minimum NFIP requirements via public education, additional freeboard requirements, and so on. According to the state program administrator, this translates into approximately $20 million in savings in policyholder premiums. NFIP participation also qualifies communities for grant funding through FEMA sources including FMA, SRL, and RFC (these funds are administered by GOHSEP). These sources have been used effectively to mitigate risk of flood by affecting land use and development within hazard areas. Table 4.1 shows the communities in Louisiana that participate in CRS.

Table 4.1. Louisiana Parish Participation in the NFIP CRS (source: DOTD, 2013).

CRS Participation in Louisiana			
Community	CRS Rating	Savings	Number of Policies
Ascension Parish	8	$394,815	9,330
Baker	8	$31,475	500
Bossier City	8	$188,144	3,063
Caddo Parish	8	$32,112	761
Calcasieu Parish	8	$284,412	6,936
Carencro	8	$8,105	368
Denham Springs	8	$166,133	1,686
DeRidder	9	$1,248	86
East Baton Rouge Parish	6	$3,180,703	26,414
French Settlement	9	$4,723	130
Gonzales	8	$56,077	993
Gretna	8	$251,185	3,631
Harahan	8	$82,866	2,606
Houma	7	$194,277	5,627
Jefferson Parish	6	$15,219,849	96,032
Kenner	7	$2,429,879	15,954
Lafayette	8	$222,386	6,760
Lafayette Parish	8	$228,515	7,900
Lake Charles	8	$185,275	5,590
Livingston Parish	9	$294,944	10,085
Lutcher	9	$125	171
Mandeville	7	$256,196	2,834
Morgan City	8	$118,707	2,037
New Orleans/Orleans Parish	8	$7,373,615	88,596
Ouachita Parish	9	$50,505	1,964
Rayne	9	$2,746	286
Ruston	9	$959	66
Scott	8	$64,753	887
Shreveport	7	$431,746	4,469
St. Charles Parish	8	$586,047	11,908
St. James Parish	7	$12,315	886
St. John Parish	8	$306,504	6,842
St. Tammany Parish	7	$1,886,145	35,413
Slidell	7	$976,259	7,875
Sorrento	9	$8,120	247
Tangipahoa Parish	9	$67,740	4,570
Terrebonne Parish	6	$1,201,325	13,690
Walker	9	$30,816	849

CRS PARTICIPATION IN LOUISIANA			
Community	CRS Rating	Savings	Number of Policies
West Baton Rouge Parish	8	$13,981	730
Westwego	8	$51,881	1,450
Zachary	7	$39,811	549
TOTALS		**$36,937,419**	**390,771**

The **Statewide Flood Control Program** is another program administered by the DOTD. Funded by Capital Outlay, the Statewide Flood Control Program works in cooperation with local governments, DOTD engineering and technical assistance to provide surveys, cost estimates, hydraulic designs, plans, right-of-way maps, specifications, advertising for bids, construction of levees, canals, dams locks, spillways, reservoirs, water wells and test holes, drainage systems, irrigation systems, navigation projects, flood control, and other types of public works projects. This DOTD program significantly enhances the state's ability to implement land use and/or land development activities in hazard areas through its integration of hazard (risk) mitigation data, techniques, and technologies into the design and construction of public works infrastructure. Such effective infrastructure design and development enables the state to consider and/or pursue other land-use or land development projects in hazard areas, and thereby greatly enhances the state's regulatory capability.

One of the most important new programs is the **Coastal Protection and Restoration Authority (CPRA)**, which was established in 2007 after hurricanes Katrina and Rita. It stands as the single state entity with authority to chart a comprehensive coastal protection and restoration strategy in order to create a more sustainable Louisiana. The Louisiana State Legislature charged the CPRA with responsibility for "hurricane protection and the protection, conservation, restoration, and enhancement of coastal wetlands and barrier shorelines or reefs" throughout southern Louisiana's coastal zone, which is comprised of the contiguous areas subject to storm or tidal surge. The CPRA's mandate is to develop, implement, and enforce a comprehensive, long-term coastal protection and restoration strategy through both *Louisiana's Comprehensive Master Plan for a Sustainable Coast*, a document with a 50-yr planning horizon (updated every 5 years), and the *Integrated Ecosystem Restoration and Hurricane Protection in Coastal Louisiana Annual Plan* (updated yearly).

The CPRA acts in direct response to both legislative and executive orders. According to the Louisiana Revised Statutes §214.1(C),

> The state must act to conserve, restore, create, and enhance wetlands and barrier shorelines or reefs in coastal Louisiana while encouraging use of coastal resources and recognizing that it is in the public interest of the people of Louisiana to establish a responsible balance between development and conservation. Management of renewable coastal resources must proceed in a manner that is consistent with and

complementary to the efforts to establish a proper balance between development and conservation.

Moreover, according to Governor Jindal's Executive Order BJ 2008-7: *Activity and Permit Consistency with Louisiana's Comprehensive Master Plan for a sustainable Coast*, "All state agencies shall administer their regulatory practices, programs, contracts, grants, and all other functions vested in them in a manner consistent with the Master Plan and public interest to the maximum extent possible." The CPRA is now established as the single state entity with authority to articulate a clear statement of priorities and to focus development and implementation efforts to achieve comprehensive coastal protection for Louisiana. It is working closely with other entities on coastal issues, including the state legislature; the Governor's Advisory Commission on Coastal Protection, Restoration, and Conservation; the Louisiana Recovery Authority (LRA); and the LRA's Louisiana Speaks regional planning process.

The Governor's executive assistant for coastal activities chairs the CPRA. Agencies in the CPRA include the following: the secretaries of the Department of Natural Resources (DNR); the Department of Transportation and Development (DOTD); the Department of Environmental Quality; the Department of Wildlife and Fisheries; the Department of Economic Development; the commissioners of the Department of Agriculture and Forestry; the Department of Insurance; and the Division of Administration; the director of the State Office of Homeland Security and Preparedness; and the chair of the Governor's Advisory Commission on Coastal Protection, Restoration, and Conservation. Additionally, CPRA membership includes two executive board members of the Police Jury Association and three levee district presidents from coastal Louisiana.

The mandate to the CPRA does not extend, however, to parish land use plans, as they are not within state purview. Given the emergency coastal erosion facing Louisiana, it is imperative that all government agencies act quickly and in accord with the CPRA's Master Plan. This order highlights the need for this Plan Update to drive and expedite state action across agencies; the same need applies to the state's partners at the local and federal levels, consistent with their mandates and missions.

Coordination between state and local authorities is vital in hazard mitigation. For instance, although the Louisiana **Uniform Construction Code (UCC)** may be enforced at the state level through the Office of State Fire Marshal (upon request for commercial construction), local education regarding the UCC is coordinated and supported by DPS through the Louisiana State Uniform Construction Code Council (LSUCCC). Since it went into effect in 2007, the UCC has had a significant impact on lowering risk by reducing exposure to wind- and flood-related hazards in hazard areas through the direct regulation of land use and development. Additionally, the UCC is adopted on the state level and all parishes are required to provide enforcement of the UCC. Recent reviews by the LSUCCC indicate that a small percentage of local officials are either not aware of UCC-enforcement, or inadequately equipped to provide proper enforcement. Continuing education of local officials is needed.

Many mitigation programs operate effectively and even without notice because they are integral to some agencies' objectives. The permanent protection of wildlife habitat through cash sale acquisitions, donations, or conservation easements in the **Land Acquisition Program** is a way to help accomplish the DWF's mission and to advance hazard mitigation goals. Since its inception, the program has acquired almost 610,000 acres of wildlife habitat through fee title acquisitions, donations, or land transfers. An additional 516,167 acres are under variable-length, lease agreements between DWF and private corporations, governmental agencies, and non-governmental organizations. The leased properties represent unprotected fish and wildlife habitat. The owned and leased properties collectively make up the 61 Wildlife Management Areas and Refuges managed by DWF. The WMAs and refuges provide a wide variety of habitats that help fulfill DWF's mission. The success of the land acquisition programs depends upon several factors. Funding is the primary limiting factor and therefore, it is extremely important to have a sufficient and sustained funding source. Land prices continue to escalate, particularly within the past few years as competing interests from land development, alternative fuels, and environmental projects such as carbon sequestration have emerged. Unfortunately, DWF's funding source has been static, thereby severely limiting its ability to acquire habitat from willing sellers.

Another program related to mitigation and mission is the **Scenic Rivers Program** at DWF, which is responsible for preserving, protecting, developing, reclaiming, and enhancing the wilderness qualities, scenic beauties, and ecological regimes of certain free-flowing Louisiana streams. DWF identifies projects requiring Scenic River Permits by (1) conducting routine surveillance of these streams; (2) responding to information provided by the public and local governing authorities; and (3) reviewing notices published by those seeking other state and federal permits for potential impacts to these streams. Channelization, clearing and snagging, channel realignment, reservoir construction, and commercial clear cutting of trees within 100 feet of the ordinary low water mark are prohibited on designated Scenic Rivers in Louisiana. By imposing restrictive permit conditions, modifying proposed activities in ways that minimize or eliminate impacts, and enforcing the provisions of the Scenic Rivers Act to insure compliance, DWF has been very effective in preserving vegetated stream buffers, protecting water quality, and preventing the encroachment of development and protecting the natural character and flood-mitigation capacity of these streams. There are currently approximately 80 streams, rivers and bayous in Louisiana's Natural and Scenic Rivers System, which includes approximately 3,000 linear stream miles.

Established in 1980, the DNR's **Louisiana Coastal Resources Program (LCRP)** requires permits for activities which have direct and significant impacts on coastal waters. Coastal Use Permit (CUP) applications are processed with respect to the consistency of the proposed use with the LCRP. Impacts to wetlands and coastal protective features, as well as hazard potentials, are elements which are evaluated during the CUP review process. The DNR developed a strategic plan pursuant to state law that requires the creation of performance measures. The LCRP's major performance measure is wetland mitigation. The goal is for the LCRP to obtain 100% mitigation for permitted wetland impacts. The performance measure is reported to the Legislature on a quarterly basis, is subject to auditing, and is available to the public. The LCRP

mitigation performance measure has never been less than 100% and is usually greater than 100%.

The **Louisiana Coastal Wetland Conservation Plan** also provides documentation of the state's mitigation requirements through the CUP process. The documentation takes the form of a biannual report to Congress composed by the U.S. Fish and Wildlife Service, EPA, and USACE. Louisiana's Coastal Zone Inland boundary was modified in the 2012 Regular Session of the Louisiana Legislature with the passage of House Bill 656 (Act 588). Boundary changes are based on the recommendations of a scientific study conducted for and approved by the CPRA.

The goal of the Coastal Impact Assistance Program (CIAP) **Coastal Forest Conservation Initiative (CFCI)** is to conserve and protect in perpetuity coastal forest resources in Louisiana, which provide significant benefits to the citizens of Louisiana. The primary objective of the CFCI is to acquire land rights (fee title or conservation servitude) from willing landowners of properties that meet at least one of the following criteria: (1) provide direct storm damage reduction potential or protection of hurricane/storm protection features and measures (e.g., levees, cheniers, etc.); (2) are in areas of high ecological significance; or (3) have tracts that are in danger of conversion to non-forested uses. Different hydrologic classes and all native forest types across the coast are considered. The initiative also includes the potential for implementation of small-scale projects to restore and enhance forest sustainability, such as those that reduce excessive ponding or impoundment, help offset subsidence, and to reforest disturbed sites.

Another key tool in local mitigation of hazards is **floodplain management**. Floods, whether riverine, backwater, surge-related, or caused by levee failure, present the most costly and pervasive hazard in Louisiana. Floodplain management is the most comprehensive, relevant, and practical mitigation tool, with many funding options available through typical hazard mitigation sources.

One measure of the effectiveness of floodplain management is participation in FEMA's NFIP. Statewide, all parishes participate in NFIP. All affected jurisdictions adopted post-Katrina/Rita Advisory Base Flood Elevations (ABFEs), except St. John the Baptist Parish and the incorporated municipalities of Gueydan and Erath—however, Vermilion Parish, within which both of these municipalities are located, adopted ABFEs. As of July 26, 2013, 30 of the 64 parishes in Louisiana have Digital Flood Insurance Rate Maps (DFIRMs). Twelve parishes remain without them, while 22 are in some phase of a mapping update.

Table 4.2 summarizes relevant hazard-mitigation-related state policies, programs, and activities at the pre- and post-disaster phase, as well as those policies that relate directly to development regulation.

Table 4.2. Agencies and their pre-disaster and post-disaster actions, as well as their regulation of development.

STATE AGENCY HAZARD MITIGATION PROGRAMS AND ACTIVITIES			
Agency	Pre-Disaster	Post-Disaster	Regulation of Development
CPRA	Planning and implementation of structural and nonstructural protection programs and projects throughout coastal Louisiana • Quarterly and annual inspection of federal, state, and local levees and other flood protection projects in Louisiana coastal area • Local cost-share partner for levee construction and other structural protection measures • Provide technical assistance, training, and certification for levee inspectors and levee owners • Review of permits on riverine and hurricane protection activities • Development and prioritization of nonstructural projects in 2012 Coastal Master Plan • Support of land use planning through: the CPRA's Coastal Community Resiliency Program (CCR), publication of Best Practices Manual for Development in Coastal Louisiana and the Louisiana Coastal Land Use Toolkit Planning, engineering, design, construction, operation, maintenance, and monitoring of coastal restoration projects • State-funded coastal restoration projects (e.g., - sediment diversions, marsh creation, barrier island restoration, ridge restoration, hydrologic restoration, shoreline protection, bank stabilization, oyster barrier reefs, and others) • Obtains federal cost-share funding for and implements coastal restoration programs, feasibility studies, and projects. Public outreach and education • 4-H Youth Wetlands Education and Outreach Program	None	None

STATE AGENCY HAZARD MITIGATION PROGRAMS AND ACTIVITIES			
Agency	Pre-Disaster	Post-Disaster	Regulation of Development
GOHSEP	State Administration of Federal Grant Programs • PDM • Flood Mitigation Assistance Coordination of State and local mitigation planning Community Education and Outreach program (CEO) Training Programs	State Administration of Federal Grant Programs • HMGP • Individual Assistance (IA) • Public Assistance (PA) • (PA) / 406 HMGP	None
LDAF	Fire weather forecasting Soil and Water Conservation Animal Health Services (food security) Formosan Termite Initiative Louisiana Project Learning Tree (K-12 environmental education)	Production of reforestation seedlings	Enforcement of Timber Laws
DOC	Mass care and evacuation support for municipal and parish correctional facilities. Loss Prevention Unit (employee injury, property and records loss) State and local emergency management planning (ESF-6, housing, feeding, medical and mental healthcare)	General Support EOC Task Force DOC HQ Incident Management Center Continued mass care and evacuation support for municipal and parish correctional facilities Backup power generation Information/Business Continuity–(DOA) Living Disaster Recovery Program (LDRP)	None
Louisiana Economic Development	Pre-Disaster Economic Impact Analysis Development of community infrastructure through Louisiana Economic Development Corporation (LEDC)	Distribution of satellite imagery following a disaster Post-Disaster Economic Impact Analysis Small Business Administration (SBA) Small Business Assistance	LED jointly funded a project to write model zoning ordinances

STATE AGENCY HAZARD MITIGATION PROGRAMS AND ACTIVITIES			
Agency	Pre-Disaster	Post-Disaster	Regulation of Development
DEQ	Nuclear Power Plant Off-site Emergency Preparedness Program Radiological Emergency Planning and Response Remediation program OzoneAction! Drinking Water Well Protection Program Motor Vehicle Inspection and Enforcement Program	Underground Storage Tank and Remediation Division (USTRD)	Permitting Programs (Air, Water, Waste)
DHH	Fight the Bite Program (West Nile Virus) Bioterrorism Unit (training) Pandemic program	Regional Response Team Mobile Field Units Immunization Teams Evacuation Planning Requirement for Licensing Nursing Homes and Home Health Agencies Special Needs Shelters	None
LDI	Consumer 101 public education including oversight "watchdog" functions for protecting policy holders with private insurance companies and providing information on the NFIP. Also is proactive in storm mitigation education via press conferences, news releases and a mitigation brochure.	Office of Consumer Advocacy receives inquiries and complaints from consumers; prepares and disseminates information to inform and assist consumers; and may provide direct assistance and advocacy via one on one presentations and consultations. Office of Property and Casualty also receives complaints from consumers and seeks to resolve complaints in a timely manner with insurance companies.	None

STATE AGENCY HAZARD MITIGATION PROGRAMS AND ACTIVITIES			
Agency	Pre-Disaster	Post-Disaster	Regulation of Development
DNR	Digital Mapping (Geographic Information System (GIS)) Distributes information on causes of coastal and wetland erosion and methodologies to restore coastal and wetland areas Coastal Zone Management program and grants Coastal Wetlands Reserve Program Parish Coastal Wetlands Restoration program Prepare and plan for large scale evacuations and/or disruptions to the public fuel supply	Surveys coastal restoration projects for damages and seeks FEMA funding as appropriate for needed repairs Digital Mapping (GIS) Provides visibility on the public fuel supply for large scale evacuations and/or disruptions to the public fuel supply	Performs regulatory permit functions and mitigation activities related to the State's coastal zone; issues Coastal Use permits
DPS	Provides for the administration of the Louisiana State Uniform Construction Code Council (LSUCCC) Provides assistance to the LSUCCC and supports local education and training of the UCC	OSFM Urban Search and Rescue and Rapid Response teams assist local efforts Louisiana Traffic Safety Incident Management System (ICS)	OSFM reviews all new construction and renovation of existing structures statewide for compliance with life safety, fire protection, and accessibility regulations OSFM provides enforcement of the LSUCC where requested by parishes and municipalities or individuals
CRT	Hazard Mitigation is taken into consideration as part of planning, development projects and timber management Public education on disaster related topics are included in agency nature programs	Extended Recreation Sites operational hours for possible housing locations Sites used as staging areas	None

STATE AGENCY HAZARD MITIGATION PROGRAMS AND ACTIVITIES			
Agency	Pre-Disaster	Post-Disaster	Regulation of Development
DOTD	State management of NFIP Statewide Flood Control Program Ports Construction and Development Program Dam Safety Program Floodplain Management Program Educates and assists communities with CRS participation Educates and encourages working relationships between community NFIP staff and local HMGP POCs Plans and conducts educational workshops for local officials Produces and distributes a quarterly NFIP newsletter LA. Emergency Evacuation Plan, including highway contra-flow and evacuation of persons without access to transportation	Floodplain Management Staff contact each community within the declared disaster area to discuss the rules and regulations of the NFIP with a special emphasis on the community's post-disaster responsibilities Ports Construction and Development Program Post-disaster damage assessments	Permitting for all state roads and highways including road access and easements Permitting for all new construction and modifications to dams in Louisiana
WLF	Public information library and the Woodworth Education Center	Operates staging facilities for Search and Rescue (Enforcement Division) Utilizes building elevation and hardening in reconstruction effort	Land Acquisition for Wildlife Management Program Scenic Rivers Program

STATE AGENCY HAZARD MITIGATION PROGRAMS AND ACTIVITIES			
Agency	Pre-Disaster	Post-Disaster	Regulation of Development
DOA	Construction of state-owned structures via Facility Planning and Control (FPC) Integrating mitigation design features when feasible Enforcement of State and Federal regulations for design and construction of State buildings Maintenance of Facilities Management database	Disaster Recovery projects for state facilities (FPC) Designated applicant for public assistance to FEMA for all permanent repairs for Katrina and Rita (FPC) Administers Road Home housing assistance through the Office of Community Development Administers Road Home (HMGP) Elevation, Pilot Reconstruction, and Individual Mitigation Measures (OCD) Administers CDBG infrastructure grants through the Office of Community Development	FPC is the Building Code authority for all State owned buildings (with limited exceptions) FPC administers development activities of all non-DOTD State owned property through administration of the capital outlay bill FPC is the central leasing authority for all State agencies
LSU AgCenter	Hazard mitigation information for homeowners and professionals Flood Insurance Rate Maps interactive internet portal and floodplain management education Flood and surge risk appreciation programs Resilient Communities and Economies Initiative Website resources for specific flood and wind mitigation activities, mitigation legislation and development regulations Stewardship Programs for Louisiana's Coastal Landowners Louisiana House Project Master Farmer Program Youth program in hazard mitigation and planning Economic programs to help jurisdictions prepare fiscally for disaster expenses	Provides general information and website support regarding post-disaster recovery and related mitigation activities	Manages design, construction and restoration of research and extension facilities across the state

As this section has illustrated, Louisiana has a number of successful and promising hazard mitigation programs and activities through a wide variety of agencies and organizations. Louisiana now often implements programs that support natural hazard mitigation through ecosystem and coastal restoration, coastal zone monitoring and permitting, and other land-use regulation programs. Most programs overall directly mitigate risk from riverine, backwater, and surge flooding for their areas of concern, in addition to risk posed by high winds and other identified hazards.

In many cases, however, these programs' *full* potential for effective mitigation is unrealized. The cause of this most often cited is a shortage of funding, staff, or technical support. Programs or policies may also have loopholes, structural disincentives, or funding shortfalls.

HAZARD MANAGEMENT CAPABILITIES

This subsection scrutinizes the state's hazard management capabilities, including an overview of personnel and their technical capacities, as well as state and federal funding for mitigation actions.

PERSONNEL CAPABILITY

In 2010, GOHSEP staffing increased from 273 to 350 in the Disaster Recovery Division with 100 staff (up from 89) working in Hazard Mitigation. Since then, GOHSEP has endeavored to streamline and otherwise improve internal processes, resulting in a smaller overall workforce. The number of employees in Hazard Mitigation decreased to 58. Likewise, the number of contractor personnel decreased from twenty-two in 2010 to six in 2013.

The ongoing decrease in contractor personnel reflects in part the growing technical abilities of GOHSEP personnel in both application development and grants management. It is also a reflection of a more tenured mitigation staff. Since the approval of the previous plan, GOHSEP has improved its hazard management capabilities due to the retention of trained staff who have increased their knowledge of running the division's programs. Moreover, since the Louisiana Recovery Office closed, GOHSEP staff have been working more directly with FEMA's Region VI. In the meantime, technical training remains a priority of the Section's management, but training topics also reflect the nuanced concerns of a more seasoned cohort. Nevertheless, salary levels at GOHSEP remain non-competitive with salaries in the private sector or at FEMA. As a result, GOHSEP has lost approximately five staff members in the past year to private firms working on Hurricane Sandy recovery, while an additional two employees have retired.

Much of the implementation capacity for programs coordinated at the state level lies at the local level. This is particularly true of floodplain management, Uniform Construction Code (UCC) enforcement, and Coastal Zone Management. GOHSEP's mitigation staffing capability extends

to being tasked with coordinating state hazard mitigation planning and policy, in large part through the creation, maintenance, and implementation of this Plan Update.

GOHSEP is continuing to develop the capability to consistently maintain the level of accounting and documentation required to support labor-intensive HMGP administrative and management processes. The State of Louisiana has begun to build a web-based grant administration tool (Louisianahm.com) that allows both GOHSEP and its sub-applicants to create and administer Hazard Mitigation grants, from application development through closeout. The state has dedicated financial and human resources to build a system that will allow for electronic application submission, payment submission and processing, document retention, the submission of amendments, and requests for closeout. Documents of business requirements have been submitted to the state's contracted vendor for system build-out, and the system is expected to be ready for sub-applicants in 2014.

In addition, Hazard Mitigation has undergone a major reorganization reflecting the shift from application development to grants management and closeout. Figure 5.1 shows how staffing levels have changed over the past eight years and forecasts where staff might be needed in the future. As the chart suggests, Hazard Mitigation anticipates another significant shift in coming years as more staff members are dedicated to project closeout.

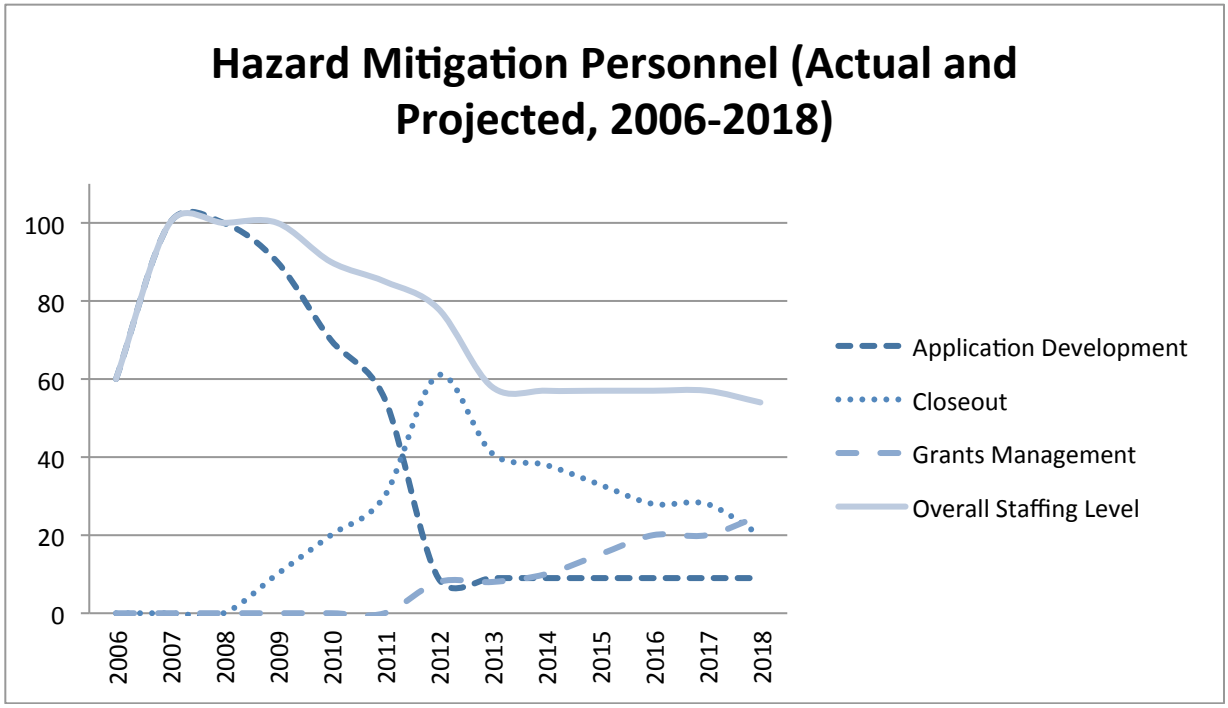

Figure 4.1. Hazard mitigation personnel, 2006-2013 (actual and projected, 2006 to 2018).

GOHSEP, DNR, and DOTD all have significant numbers of staff devoted specifically to hazard mitigation.

TECHNICAL CAPABILITY

Virtual Louisiana, the current common data portal, is a Google Earth Enterprise platform, a state-mandated information-sharing gateway for emergency management. It is an integrated system for GIS data-collection and management related to hazards in Louisiana. Several agencies and regional entities (as well as a number of localities and universities) maintain excellent GIS and other databases that are shared with GOHSEP and disseminated via Virtual Louisiana. At the state level, the CPRA, DOTD, DOA, DNR, DEQ, and others maintain valuable GIS data. The Louisiana Geographic Information Council (LAGIC) is also involved in coordination of data.

The CPRA makes its coastal protection and coastal restoration data available on the internet, which includes satellite imagery, aerial photography, U.S. Geological Survey quad maps, Louisiana coastal restoration project boundaries, project features, monitoring station locations, and elevation benchmarks. Soon to be added are GIS data and other information describing coastal protection projects and infrastructure, such as levees, floodwalls, and pump stations. Additionally, the CPRA will release results from the 2012 Master Plan modeling effort, including current-year and projected flood depths and flood damage dollars by census block. Such advances in information are a powerful resource for hazard mitigation.

Nevertheless, many state agencies report that their base geospatial data and paper maps are often extremely outdated, particularly following the hurricanes of 2005. Such lapses make accurate assessment of risk planning very difficult. GOHSEP has managed a $9.5 million dollar HMGP grant project that has greatly enhanced the statewide data sets that are available to all state agencies. They include the following: statewide high-resolution imagery, detailed critical infrastructure locations for all 64 parishes, updated state hydrology and flood maps, and upgraded tools and applications to provide mobile editing for future updates.

The management of GIS data regarding risk and hazard mitigation has greatly improved since the last plan update. This includes establishing the infrastructure and methods for ongoing GIS data transfers between state and local governments. Ongoing improvements will include a statewide geospatial portal, which will serve as a one-stop GIS data repository and will be managed and hosted by the LSU Stephenson Disaster Management Institute. This portal will link to the existing GOHSEP portal and provide data for non-emergency management related issues and professionals.

Some areas for improvement in regards to the technical capabilities and GIS data management for hazard mitigation include increased skill-specific professional development opportunities for existing hazard mitigation specialists and GIS staff; funding for GIS and hazard modeling software maintenance and licensing; a rigorous internship program to provide staffing support; and increased participation in EMAC events such as Super Sandy so best practices can be shared and implemented.

To provide a sound basis for ongoing and future hazard mitigation planning, and to integrate local and state planning, data must be improved in the following ways:

- a better system of GIS and other data creation
- consistency
- management
- distribution

The most viable option is likely one that involves partnerships between GOHSEP, Louisiana universities, and other state agencies, as well as local and regional entities.

Financial Capability

In order to discuss the current and potential funding sources for the implementation of mitigation activities in a timely way, this Plan Update will limit discussion to programs with direct relationships to hazard mitigation.

In this Update, the major new source of current and potential funding for hazard mitigation comes through penalties resulting from the Deepwater Horizon oil spill in 2010. Moreover, the state is actively exploring new sources of funding to ensure that the coastal program maintains its current momentum, including Clean Water Act (CWA) penalties resulting from the spill, future Gulf of Mexico Energy Security Act (GOMESA) funding, and credit initiatives that would generate revenue from the carbon sequestration and water quality benefits of constructed projects. The top five sources of all funding for the next projected three years (FY 2014–FY 2016) include the following:

- Natural Resource Damage Assessment (NRDA)—$537 million
- Surplus ‘07, ‘08, ‘09 Funds—$431.9 million
- Coastal Impact Assistance Program (CIAP)—$159.8 million
- Other Oil Spill Related Revenues—$146 million
- CPR Trust Fund Annual Revenue—$102.8 million

In terms of hazard mitigation, though, this subsection will first explore important continuing sources of funding through federal channels.

Federal Funding

Through FEMA, the federal government has several programs to support hazard mitigation. These programs are federally funded, but they are typically administered by GOHSEP and other state and local agencies. FEMA’s **Pre-Disaster Mitigation (PDM)** program is designed to implement cost-effective hazard mitigation activities that complement a comprehensive

mitigation program. These include planning, acquisition, retrofitting, flood control projects, generators, and other projects. All applicants must participate in the NFIP if they have been identified through the NFIP as having a Special Flood Hazard Area (SFHA). Only governments are eligible. PDM covers up to 75% of costs.

Authorized in the Stafford Act, the **Hazard Mitigation Grant Program (HMGP)** is administered by FEMA and provides grants to states and local governments to implement long-term hazard mitigation measures after a major disaster declaration. The purpose of the program is to reduce the loss of life and property due to natural disasters and to enable mitigation measures to be implemented during the immediate recovery from a disaster. Eligible projects include drainage systems, structure elevation, landscape alteration, floodwalls, road elevation, property acquisition, development of mitigation plans, development of land-use regulations, and more. Governments and selected non-profits are eligible. HMGP covers up to 75% of costs.

FEMA's **Public Assistance (PA)** also has a mitigation program. The PA Program provides supplemental federal disaster grant assistance for the repair, replacement, or restoration of disaster-damaged, publicly owned facilities and the facilities of certain private, non-profit organizations. Eligible projects include debris removal, emergency protective measures, repair to transportation infrastructure, repair to utility infrastructure, and more. PA covers up to 75% of costs. It is important to note that the cost share for PA can be adjusted on a disaster-by-disaster basis by an Act of Congress. For example, in the wake of hurricanes Katrina and Rita, the federal share of PA was increased to 90%, and then to 100%, waiving the state/local share entirely. The majority of Hurricane Katrina- and Rita-related funds came through PA and HMGP. The PA program contains a mitigation component wherein eligible damaged infrastructure can be mitigated if mitigation measures are deemed cost-effective and environmentally-sound. Table 4.3 compares PA hazard mitigation to HMGP.

Table 4.3. Source: FEMA, James Lee Witt Associates.

Comparison of Section 404 (HMGP) to Section 406 (PA) Hazard Mitigation Grants		
	Section 404 (HMGP)	Section 406 (PA)
Administration	State	FEMA
Funding source	Hazard Mitigation Grant Program (HMGP)	Public Assistance (PA) grant program
Application process	Application must go through HMGP review process	Application is part of PA review process
Funding uses	Usable on any facility	Limited to damaged facilities
	Usable for structural and non-structural measures	Limited to structural measures
	Usable for any mitigation purpose	Usable only for mitigation of a damaged facility or element

Comparison of Section 404 (HMGP) to Section 406 (PA) Hazard Mitigation Grants		
	Section 404 (HMGP)	Section 406 (PA)
	Usable anywhere in the State (some disaster declarations may limit the area where HMGP can occur)	Limited to declared disaster areas
Benefit Cost Analysis (BCA) criteria	Entire project must be cost-effective per FEMA BCA module	If <15% of the total project cost are mitigation measures under PA, a project may be given administrative approval by the FEMA project officer (certain projects may be funded at higher amounts as specified in Disaster Assistance Policy 9526.1)
Linkage to hazard mitigation benefits	Cost-effectiveness can be linked to any hazard mitigation benefit	Cost effectiveness (if mitigation is >15% of project cost) must be linked to mitigating the damages actually being repaired
Total award	Total award limited by a formula based on total eligible disaster-related Public Assistance (PA) and Individual Assistance (IA) grant programs	No limit to total award

The **Flood Mitigation Assistance (FMA)** program's goal is to reduce or eliminate claims under the NFIP. FMA provides funding to assist states and NFIP-participating communities in implementing plans, projects, and programs to reduce or eliminate the long-term risk of flood damage to buildings, manufactured homes, and other structures insurable under the NFIP. This includes acquisition, elevation, flood mitigation, and more. FMA covers up to 75% of costs.

The **Biggert-Waters Flood Insurance Reform Act of 2012** eliminated the Repetitive Flood Claims (RFC) and Severe Repetitive Loss (SRL) programs. Elements of these flood grant programs have been incorporated into FMA. The FMA program now allows for additional cost share flexibility:

- Up to 100-percent federal cost share for severe repetitive loss properties
- Up to 90-percent federal cost share for repetitive loss properties
- Up to 75-percent federal cost share for NFIP insured properties

Emergency Support Function #14, Long-Term Community Recovery (ESF #14 LTCR), provides a structure under the National Response Framework (NRF) to promote successful long-term recoveries for tribes, territories, states, and communities suffering extraordinary damages,

where local capacity to implement a recovery process is limited. ESF #14 LTCR provides coordination and technical assistance to support federal, state, and local recovery processes.

As indicated above, a very large portion of funding from a variety of federal, state, and other funding sources support hazard mitigation in Louisiana through coastal programs. The following is an overview of key sources of federal funding and policies related to the implementation of coastal projects and programs.

The **Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA)** was authorized by Congress in 1990 to identify, prepare, and fund the construction of coastal wetlands restoration projects. CWPPRA is managed by a Task Force comprised of the State and five Federal agencies, including the EPA, the U.S. Fish and Wildlife Service (USFWS), the Natural Resources Conservation Service (NRCS), the National Marine Fisheries Service (NMFS), and the USACE. The CWPPRA Task Force evaluates projects proposed for inclusion in the CWPPRA program and prepares a ranked list of candidate projects annually based on cost-effectiveness, longevity, risk, supporting partnerships, public support, and support of CWPPRA goals.

The **Water Resources Development Act (WRDA)** refers to any of a set of public laws enacted by Congress to address various aspects of water resources including environmental, structural, navigational, flood protection, and hydrologic issues. The state is partnered with the USACE on multiple large-scale protection and restoration projects that have been authorized through past WRDA bills. Because WRDA projects are generally dependent upon Congressional appropriation for construction funding, federal fund procurement is the principal issue that could affect project implementation. Other issues affecting WRDA projects include cost-share agreement issues with federal partners, land rights issues, and permitting issues.

The **Coastal Impact Assistance Program (CIAP)** was authorized in 2005 as part of the Federal Energy Policy Act to help six coastal states mitigate the onshore effects of Outer Continental Shelf (OCS) oil and gas development. CIAP will provide approximately $495.6 million to Louisiana from the federal administrator (the USFWS). The state of Louisiana will receive 65% of these funds with the remaining 35% being distributed to the 19 coastal parishes. To date, approximately $486 million of Louisiana's CIAP funds have gone into implementation of 96 projects (97% of total Louisiana CIAP projects). Authorized uses of CIAP funds include projects and activities to conserve, protect or restore coastal areas, including wetlands; mitigation of damage to fish, wildlife or natural resources; planning assistance and the administrative costs of CIAP compliance; implementation of a federally approved marine, coastal or comprehensive conservation management plan; and onshore infrastructure projects and public service needs. Up to 23% of those funds can be spent on CIAP planning assistance and compliance and for onshore infrastructure projects and public service needs to mitigate OCS impacts.

The **Hurricane and Storm Damage Risk Reduction System (HSDRRS** was authorized by Public Law 109-234 (Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Hurricane Recovery, 2006) and includes the West Bank and Vicinity project the Lake Pontchartrain and Vicinity project, the IHNC Lake Borgne Surge Barrier, and IHNC Seabrook

Complex (each of which is managed separately). Each of these projects is in turn comprised of multiple segments, which have separate design and construction schedules. HSDRRS also covers multiple restoration projects that are currently under development as mitigation for wetland impacts associated with construction of hurricane protection projects. As the non-federal sponsor along with the local Levee Authorities and Levee Districts, the State has contributed to the West Bank and Vicinity and Lake Pontchartrain and Vicinity projects through plans and specifications review, construction inspection assistance, project and program management, and payment of LERRDS costs.

STATE FUNDING

For many federal grants, the "non-federal" share can be borne by the state as "grantee"; the recipient community as "sub-grantee"; or in some cases, the property owner who benefits from the project. In Louisiana, the non-federal share is borne by the community or the property owner and not the state. In the following paragraphs, this Plan Update considers the various state agencies and programs that distribute direct federal funding for hazard mitigation, often through cost sharing.

For instance, the **Department of Transportation and Development (DOTD) Floodplain Management Program/NFIP** is the state coordinating program for the NFIP and promotes local government compliance with NFIP regulations to ensure the availability of low-cost flood insurance to minimize loss of life and property due to catastrophic flooding. This is accomplished through on-site assessments, distribution of a quarterly newsletter, conducting workshops, providing technical assistance on local government ordinance development, and participation in post-disaster flood hazard mitigation activities. The program is jointly funded by FEMA and DOTD on a 75:25 cost share.

The statewide **Flood Control Program** provides an average of $10 million annually to parish and municipal governments, levee boards, and drainage districts to support projects that (1) reduce existing flood damages, (2) do not encourage additional development in flood-prone areas, (3) do not increase upstream or downstream flooding, and (4) have a total construction cost of $100,000 or more. Eligible projects include channel enlargement, levees, pump stations, relocation of dwellings and business structures, reservoirs, and other flood damage reduction measures.

The mission of the DOA **Louisiana Community Development Block Grants** is to provide assistance to local governmental entities for developing viable communities. It is principally designed to assist persons of low- to moderate-income by providing decent housing, a suitable living environment, and expanded economic opportunities.

DOA **Capital outlays** are state budget General Fund expenditures for acquiring lands, buildings, equipment or other properties, or for their preservation or development or permanent

improvement. Capital outlay planning and budgeting are directed toward the acquisition or renovation of fixed assets.

DOA's **Governor's Office of Rural Development (GORD)** has a mission to reach all of Louisiana's rural communities with resources to help them grow and benefit the lives of their citizens. The organization serves as the single point of contact for rural government service providers, state and federal agencies, and individuals interested in rural policies and programs of the State. As such, it is a crucial part in the dissemination of mitigation action.

The **Louisiana Department of Environmental Quality (DEQ) Municipal Facilities Revolving Loan Fund Program** provides below market rate loans to communities for construction or upgrade of wastewater treatment works and other water quality improvement projects. The DEQ also directs the **Drinking Water Revolving Loan Fund Program**, which provides assistance to public water systems to construct or upgrade drinking water systems to meet federal and state standards. DEQ and the Louisiana Office of Public Health, Department of Health and Hospitals (DHH) cooperate to implement this program in Louisiana.

State funding sources for coastal protection and restoration programs are relatively and appropriately large. For one, the Louisiana Legislature allocated $790 million in state budget surpluses for the years 2007, 2008, and 2009 for coastal protection and restoration activities. The state is utilizing these funds to expedite its coastal program by funding ongoing programs, developing initiatives, and implementing protection and restoration projects. The overwhelming majority of these funds have been allocated to project implementation. Louisiana has also begun implementation of projects without a federal partner using Trust Fund revenues. Broadly speaking, state-only projects generally involve one of the following categories:

- Expedited construction of components of Federal protection projects (e.g., Larose to Golden Meadow [TE-65], Morganza to the Gulf [TE-64]);
- Coordination on federal-only protection projects (e.g., CPRA's Storm-Proofing of Interior Pumping Stations [BA-74]);
- Feasibility studies for flood protection in areas not currently covered by the existing Federal protection network (e.g., South Central Hurricane Protection Plan [TV-54]);
- Protection and restoration projects not included in one of the other coastal programs that are to be implemented in conjunction with local parishes (e.g., Jean Lafitte Tidal Protection [BA-75-1], Morgan City/St. Mary Flood Protection [TV-55]); and
- Augmented design or construction of projects in other coastal programs (e.g., Medium Diversion with Dedicated Dredging at Myrtle Grove [BA-71], Caminada Headland Beach and Dune Restoration [BA-45]).

A total of $293.3 million in 2008 and 2009 was allocated to cover LERRDS cost for the Greater New Orleans Hurricane Protection System. Included within this total is $193.3 million from Act 20 of the 2009 Regular Legislative Session that was approved for Southeast Louisiana Hurricane

Protection projects. This includes credits and payments toward the State and levee district match requirements for the estimated $15 billion Greater New Orleans Hurricane Protection System work underway. The non-federal cost share of such work is estimated to be $1.8 billion plus applicable interest. Under the plan, $100 million of these funds advance planning, engineering, design and construction of hurricane protection and flood control projects in southeast Louisiana during the 2013-2014 fiscal year. These investments will match local and federal funds while improving the protection of our most vulnerable communities consistent with the Master Plan. These funds are projected to be expended in their entirety by the end of FY 2016.

The **Coastal Protection and Restoration (CPR) Trust Fund** was established in 1989 by the Louisiana Legislature to provide a dedicated source of funding for coastal restoration. Income for the fund is a dedication of a percentage of the state's mineral income and severance taxes from oil and gas production on state lands. The Trust Fund provides funding for the coastal program's ongoing operating expenses and for continuing state efforts in coastal restoration and protection. The CPRA is also charged with developing an annual plan for expenditures, managing, and administering the fund and implementing coastal restoration and hurricane protection activities.

The Gulf of Mexico Energy Security Act (GOMESA) provides four Gulf Coast states, including Louisiana, with 37.5% of federal revenue gained from new OCS drilling leases. Full funding from GOMESA will begin in 2017 and is expected to eventually contribute $100–200 million to Louisiana each year. No end date has been established for GOMESA funding.

The **CPRA/NRCS/Soil and Water Conservation Committee Vegetation Planting Program** will ensure that native marsh vegetation is planted and monitored throughout the coastal zone of Louisiana. The CPRA enters into annual cooperative agreements with the Louisiana Department of Agriculture and Forestry (DAF). It is through the DAF and the Soil and Water Conservation Committee, Soil and Water Conservation Districts (SWCD) that the planting tasks are selected, planned, evaluated, planted, and monitored. Each NRCS District Conservationist provides technical assistance to their respective SWCD throughout the planting task process.

Lastly, the **DNR Coastal Wetland Reserve Program** is meant to restore coastal wetlands on lands that have been converted to agriculture. Louisiana has pledged to make available over $200,000 each year to accomplish more of this vital coastal restoration work. The state is working with the Conservation Plan federal oversight agencies to obtain formal approval for shifting the funds for this program to focus on conservation of coastal forest through conservation easements purchased from willing landowners.

OIL SPILL FUNDING

As mentioned earlier, a coincidence at the time of this Plan Update is the large amount of funding coming in to Louisiana as a consequence of the Deepwater Horizon oil spill in 2010.

Much of this funding will implicitly fund hazard mitigation. The disaster was the worst oil spill in our nation's history, and as oil spill injuries are determined and penalties are assessed, multiple avenues for restoration are anticipated. Although the timing and amount of funds related to the Deepwater Horizon oil spill have not been fully determined, preliminary oil spill restoration planning is underway. With an understanding that the use of restoration funds will be guided by specific criteria, Louisiana is committed to maximizing its investment in oil spill recovery activities by implementing restoration projects that are consistent with the Coastal Master Plan to the extent possible. The following is an overview of anticipated sources of funding for oil spill restoration.

The **Natural Resource Damage Assessment (NRDA)** is the process used by natural resource trustees to develop, on behalf of the public, their claim for natural resource damages against the party or parties responsible for the spill. Through that claim, the trustees will seek compensation in the form of restoration for the harm done to natural resources and services. The assessment process is lengthy and complex. The NRDA will continue until the natural resource trustees have determined the full extent of damages, restoration plans are designed and implemented, and the environment and public are made whole for injuries to natural resource and services resulting from the Deepwater Horizon oil spill.

The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating water quality standards for surface waters. The CWA makes it unlawful to discharge any pollutant from a point source into navigable waters, unless a permit is obtained. Violations of the CWA can result in both civil and criminal prosecutions by the federal government. The U.S. Department of Justice (DOJ), on behalf of the Environmental Protection Agency (EPA), the United States Coast Guard (USCG), or another federal agency, may bring enforcement actions for civil or criminal penalties under the CWA.

The RESTORE Act dedicates 80% of all prospective CWA administrative and civil penalties related to the Deepwater Horizon spill to a Gulf Coast Restoration Trust Fund. The RESTORE Act also outlines a structure by which the funds can be utilized to restore and protect the natural resources, ecosystems, fisheries, marine and wildlife habitats, beaches, coastal wetlands, and economy of the Gulf Coast region. The RESTORE Act sets forth the following framework for allocation of the Trust Fund:

- 35% to be divided equally between the five Gulf States for ecological and economic restoration efforts in the region;
- 30% through the Gulf Coast Ecosystem Restoration Council to implement a comprehensive plan for ecosystem and economic recovery of the Gulf Coast;
- 30% for states' plans based on impacts from the Deepwater Horizon oil spill;
- 2.5% to create the Gulf Coast Ecosystem Restoration Science, Observation, Monitoring and Technology Program within the Department of Commerce's National Oceanic and Atmospheric Administration (NOAA); and

- 2.5% to the Centers of Excellence Research grants, which will each focus on science, technology, and monitoring related to Gulf restoration.

A civil action settlement may also include **Supplemental Environmental Projects (SEPs)**, which are tools used by the EPA and DOJ in settlements in environmental enforcement actions. The EPA describes SEPs as environmentally beneficial projects that a violator agrees to undertake when settling an enforcement action. The purpose of a SEP is to provide environmental or public health benefits beyond those required to remediate environmental damages.

Berm to Barrier Projects: The construction of the Barrier Berm projects introduced a significant amount of sediment into the state's barrier island systems. To maximize this opportunity and to improve resiliency of the material placed during construction of the berms, the state plans to convert existing barrier berms into barrier island restoration projects. The State plans to use approximately $105 million of Berm Enhancement Funding to construct the Riverine Sand Mining/Scofield Island Restoration (BA-40) project designed under CWPPRA. Any remaining funds will be applied to the Shell Island Restoration project (BA-110).

Lastly, a significant amount of funding is expected from the **BP Criminal Settlement**, which will resolve the criminal charges related to the Deepwater Horizon disaster. In total, BP agreed to pay $4 billion to resolve the criminal charges. A portion of the monies ($2.394 billion) was directed to the National Fish and Wildlife Foundation (NFWF) for natural resources restoration in the Gulf of Mexico. Approximately $1.2 billion of the funds directed to NFWF is dedicated to targeting Louisiana impacts by using the funds to "create or restore barrier islands off the coast of Louisiana and/or to implement river diversion projects on the Mississippi and/or Atchafalaya Rivers for the purpose of creating, preserving and restoring coastal habitat." The agreement states that NFWF must consider the Coastal Master Plan and the Mississippi River Hydrodynamic and Delta Management Study "to identify the highest priority projects, and to maximize the environmental benefits of such projects." If approved by the Court, the payments will be structured over a five-year period. The criminal fines do not impact the BP's liability for additional civil penalties from CWA violations.

CONCLUSION

Prior to the last Plan Update, to fully assess the State of Louisiana's capacity to support hazard mitigation, GOHSEP completed a history of the first twelve years of mitigation activities since the inception of the 1998 plan. All mitigation activities funded by the HMGP, FMA, and PDM programs were reviewed.

The process for identifying the history of mitigation projects in Louisiana involved a review of GOHSEP databases for each funding type from 1998 to 2010. Databases were gathered, then analyzed geographically and by funding type, type of mitigation action, structures affected (if applicable), and total project cost. A master database was compiled for all FMA, HMGP, and PDM projects from 1998 to 2010. While not all of the data was available in time for the last Plan

Update, the current Update presents additional data from that assessment. The information from the summary assessment is compiled in Table 4.4.

Table 4.4. Grants for hazard mitigation. Figures reflect approved projects (source: GOHSEP, 2013).

SUMMARY OF GRANTS FOR HAZARD MITIGATION (1998–2013)				
Grant Type	1998–2004	2005–2010	2011–2013	TOTAL
HMGP	$40,151,355	$1,939,881,509	$66,658,152	$2,046,691,016
FMA	$3,676,143	$47,822,715	$63,426,239	$114,925,097
PDM	$555,363	$1,273,860	$1,010,954	$2,840,177
TOTAL	$44,382,861	$1,988,978,084	$131,095,345	$2,164,456,290

Louisiana has also been enhancing its efforts to mitigate severe repetitive loss properties, both adding properties to the targeted SRL list, and by increasing efforts to mitigate them. Table 4.5 shows additions of properties to the severe repetitive loss list and Table 4.6 shows the types and number of SRL mitigation projects.

Table 4.5. Mitigation Projects for SRL properties. Funded by FMA grants, 2008–2011 (source: GOHSEP, 2013).

SEVERE REPETITIVE LOSS PROPERTIES APPROVED FOR MITIGATION PROJECTS	
Year	Number of Properties
2008	137
2009	194
2010	54
2011	114
TOTAL	**499**

Since 2004, approximately 2 billion in federal mitigation grants have been approved for Louisiana mitigation projects. Hurricane's Katrina and Rita non-federal share was matched on the state's side by $500 million in "global match" funds. Global match refers to local and state match for HMGP funds that do not go directly to the project being funded. Instead, global match is provided by applying the value of other projects or investments made on HMGP-eligible activities (subsequent to the disaster declaration) using non-federal sources.

Table 4.6. Types of SRL property mitigation projects (source: GOHSEP, 2013).

TYPES OF SEVERE REPETITIVE LOSS PROPERTY MITIGATION PROJECTS	
Mitigation Measure	Number of Properties
Elevation–Coastal Properties	59
Elevation–Riverine Properties	374
Acquisition	59
Reconstruction	59
TOTAL: Completed SRL Projects	**499**

Global match is being provided by "overmatch" by homeowners who are elevating or reconstructing their homes in the Road Home (i.e., homeowners who are spending more than their grant on eligible expenses), plus $200 million in state funding being used for coastal restoration projects.

Recently, President Obama signed the Supplemental Appropriations Act of 2010, which states, "The Administrator of the Federal Emergency Management Agency shall consider satisfied for Hurricane Katrina the non-Federal match requirement for assistance provided by the Federal Emergency Management Agency pursuant to section 404(a) of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. 5170c(a)." Disasters since Hurricanes Katrina and Rita non-federal share has been matched by the parishes or local governments.

In the following figures and table, this Plan Update presents data regarding the allocations of those funds. Figures 4.2 and 4.3 indicate the number of types of mitigation projects and their cost share by the federal government following Hurricane Katrina, while Figures 4.3 and 4.4 reveal the same information for Hurricane Rita.

Figures 4.6 and 4.7 illustrate the number of types of mitigation projects and their cost share by the federal government following Hurricane Gustav, while Figures 4.8 and 4.9 do the same for Hurricane Ike. For each figure, data in the legends are represented in the pie charts clockwise from darkest to lightest.

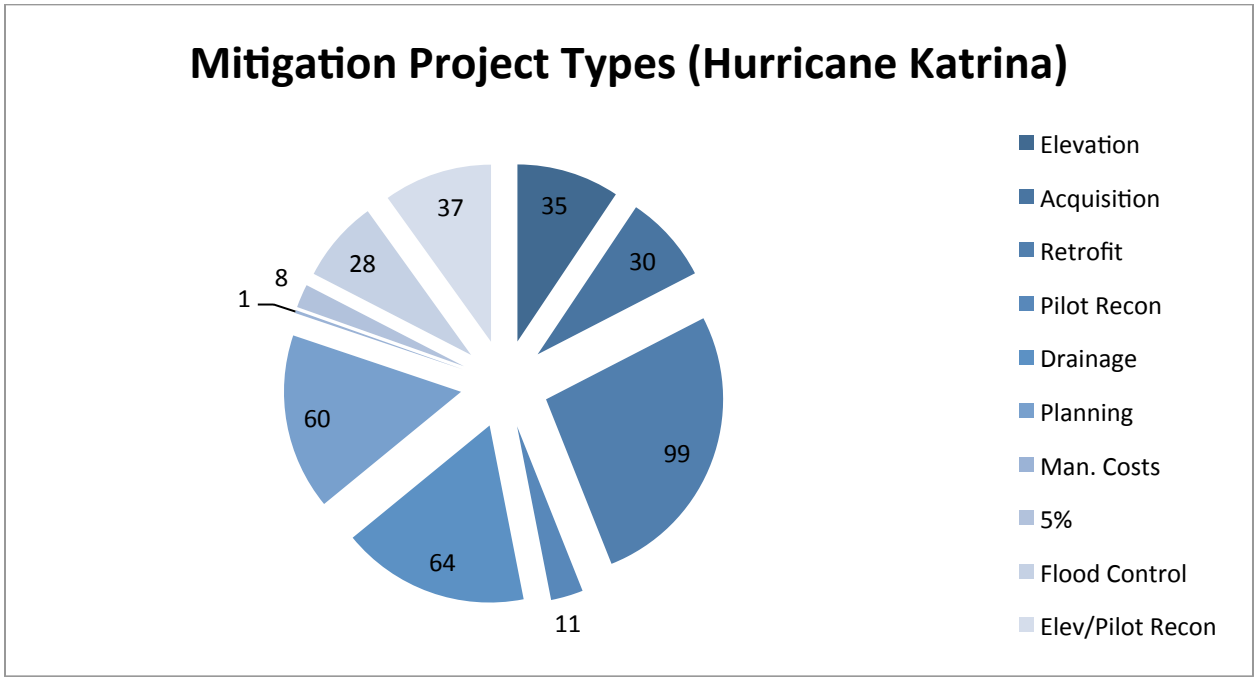

Figure 4.2. Quantity of mitigation project types.

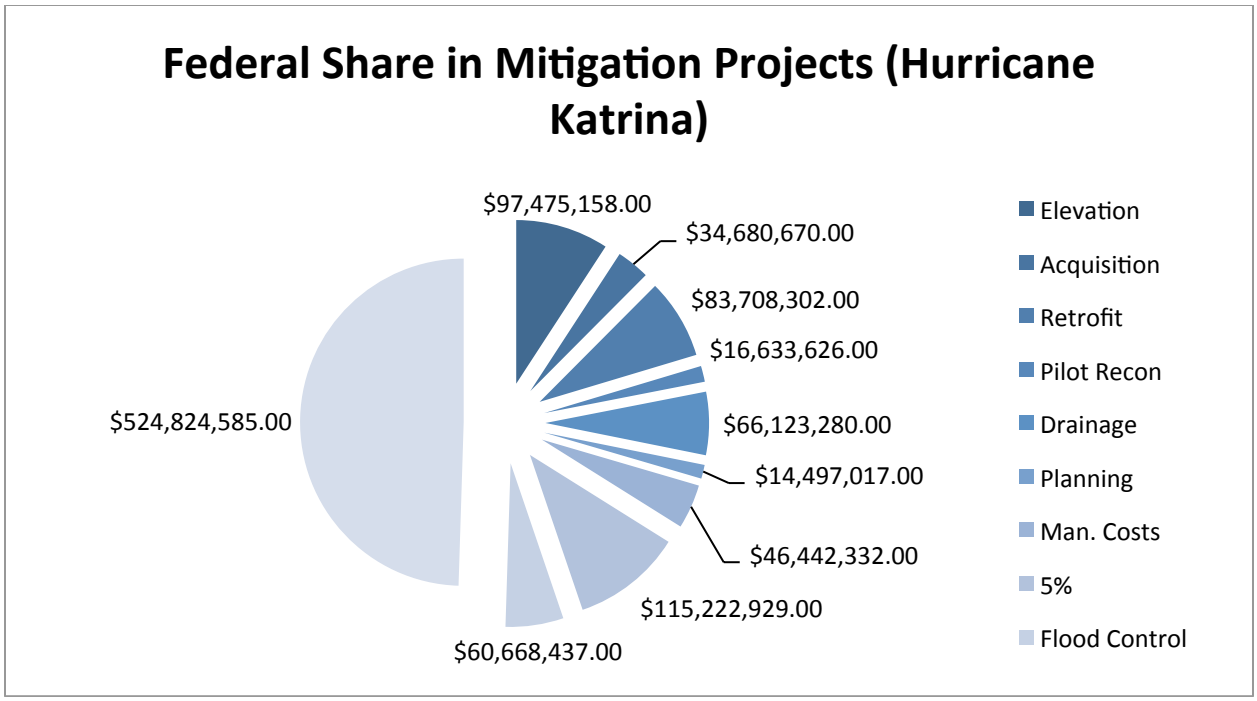

Figure 4.3. Federal share in mitigation project types.

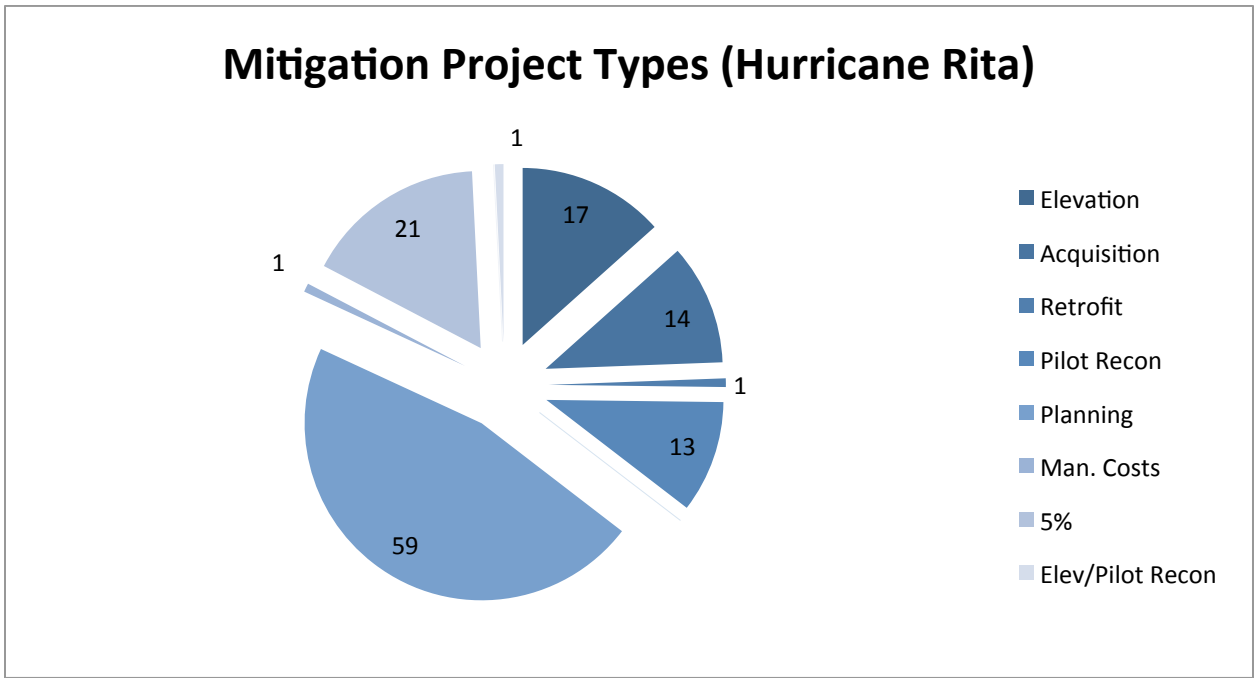

Figure 4.4. Quantity of mitigation project types for Hurricane Rita.

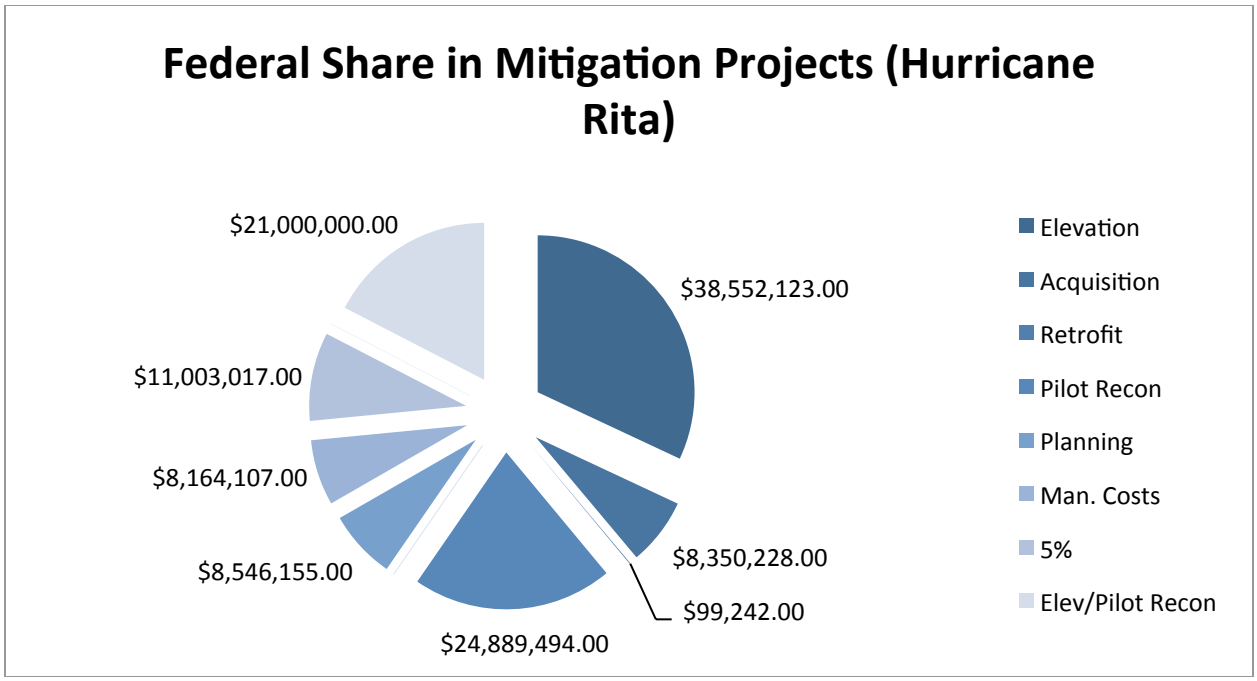

Figure 4.5. Federal share in mitigation projects for Hurricane Rita.

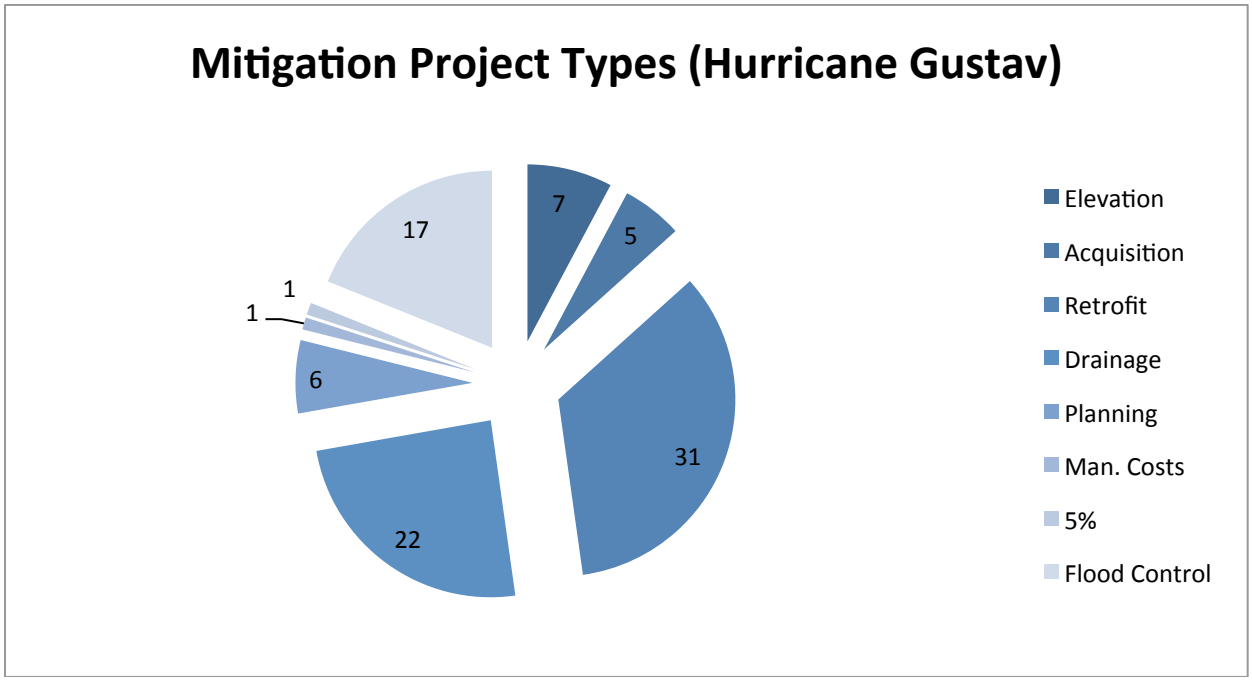

Figure 4.6. Quantity of mitigation project types for Hurricane Gustav.

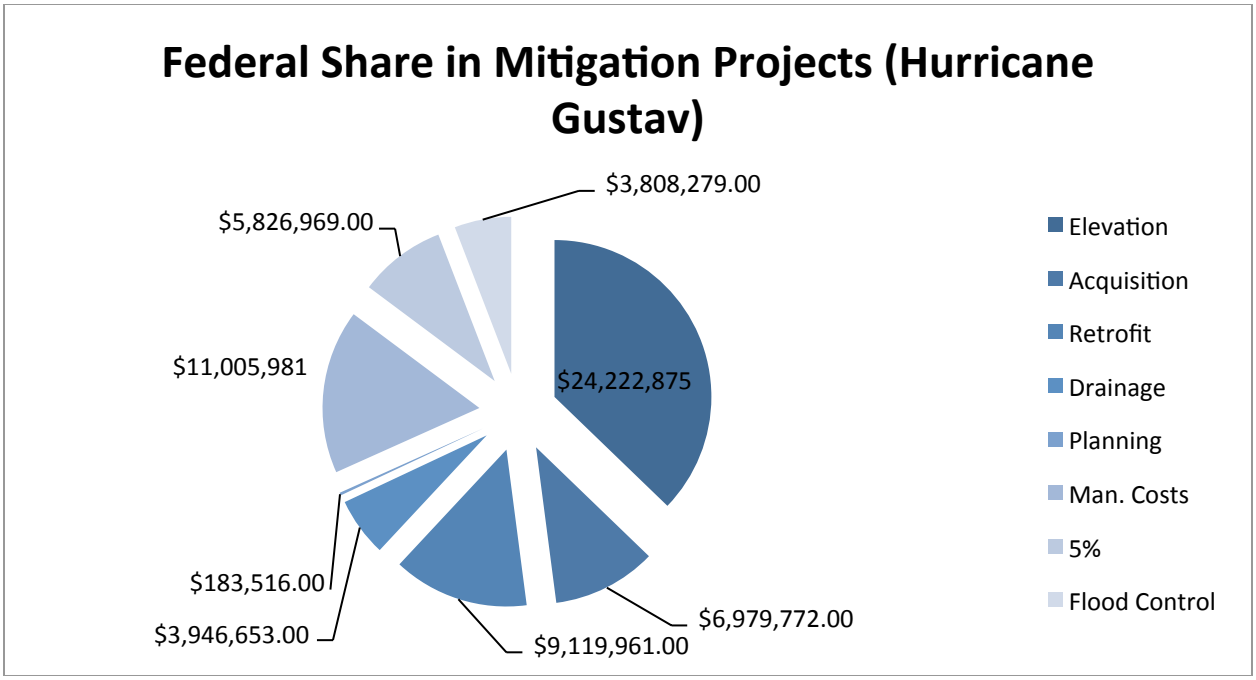

Figure 4.7. Federal share in mitigation projects for Hurricane Gustav.

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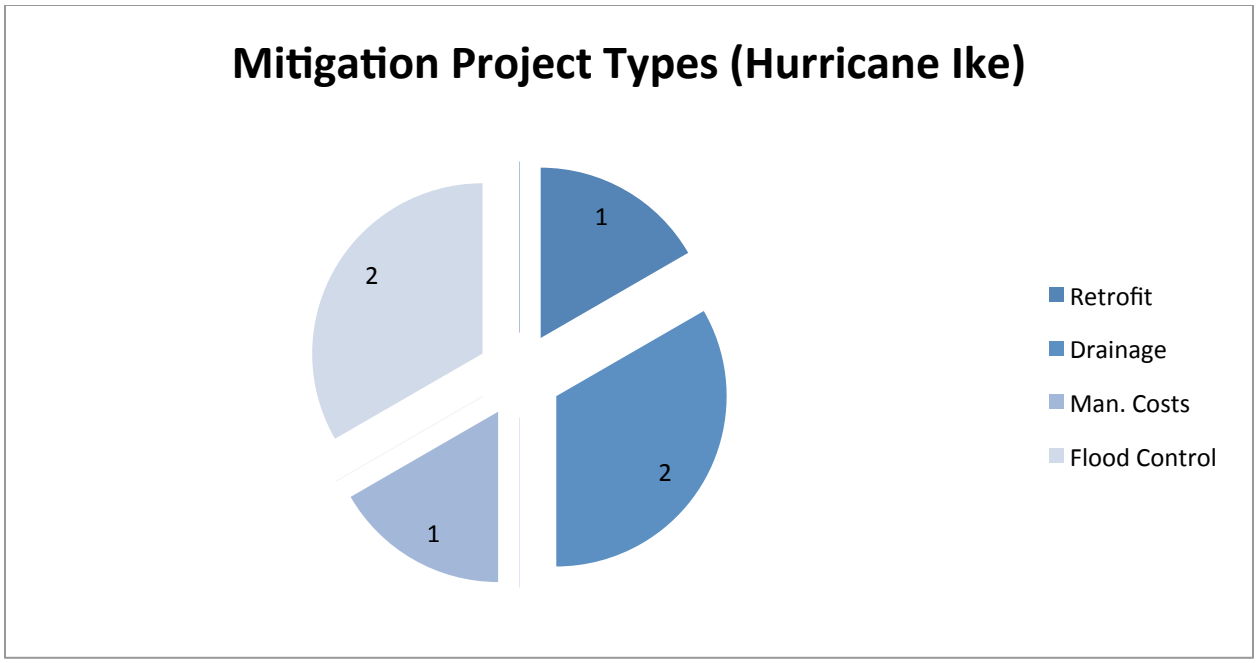

Figure 4.8. Quantity of mitigation project types for Hurricane Ike.

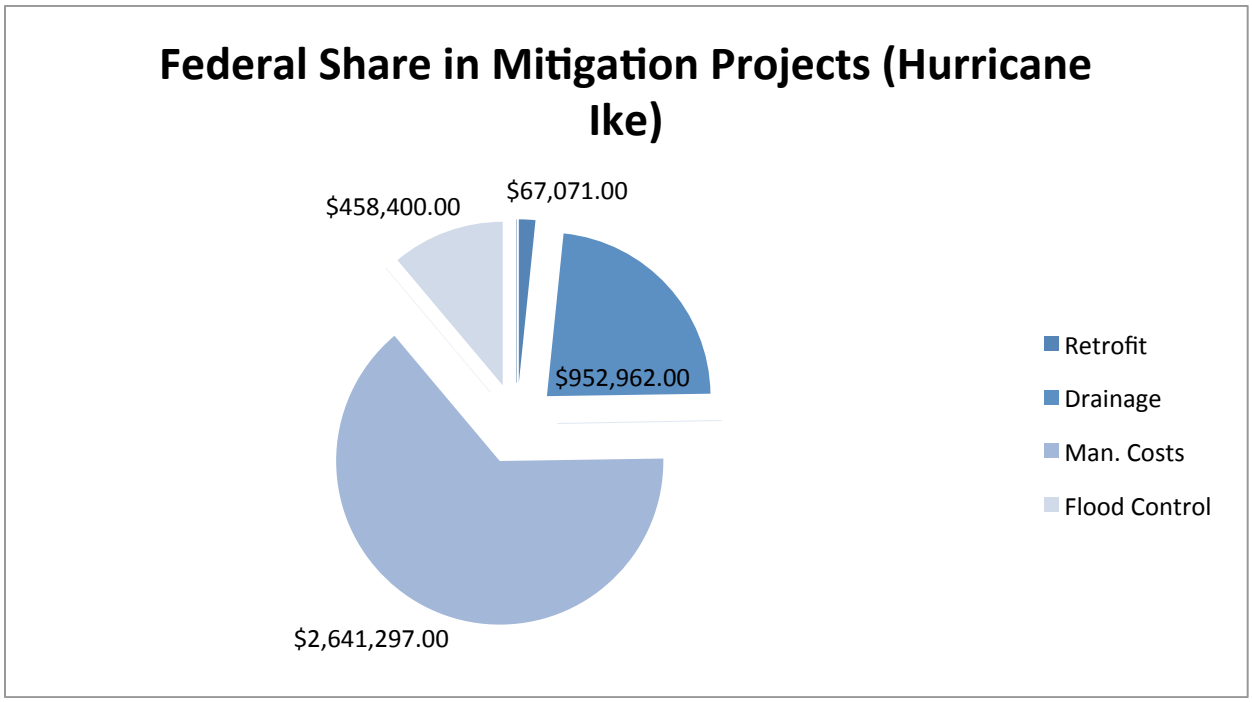

Figure 4.9. Federal share in mitigation projects for Hurricane Ike.

In 2012 the state re-allocated money from hurricanes Gustav and Ike into a statewide acquisition and elevation project. With that money, approximately 450 SRL and RL properties are to be mitigated.

Table 4.7 lists the allocations from FEMA to various parishes in Louisiana following damages from Hurricane Isaac.

Table 4.7. Parish allocations for $58 million in HMGP, awarded by FEMA for damage from Hurricane Isaac.

HURRICANE ISAAC ALLOCATIONS BY PARISH	
Parish	Hurricane Isaac Allocation
Ascension	$578,737
Assumption	$292,291
East Baton Rouge	$637,195
Iberville	$292,291
Jefferson	$8,295,225
Lafourche	$666,424
Livingston	$2,998,908
Orleans	$3,910,856
Plaquemines	$12,118,394
St. Bernard	$1,455,610
St. Charles	$561,199
St. Helena	$257,216
St. James	$450,128
St. John	$11,603,961
St. Mary	$356,595
St. Tammany	$7,237,130
Tangipahoa	$3,396,424
Terrebonne	$1,514,068
Washington	$1,835,589
Total	**$58,458,241**

As these charts and tables demonstrate, mitigation efforts related to particular hazards are highly individualized. Flexibility in response and planning is essential. Indeed, although funding for relief from major disasters has been available and ample, those funds are not always directed effectively to the appropriate areas due to poor communication between state and local authorities. The most important step forward to improve hazard management capability is to improve coordination and information sharing between the various levels of government regarding hazards.

LOCAL CAPABILITY ASSESSMENT

Hazard mitigation plans and projects for each parish typically resides with a few exceptions with the parish Office of Emergency Preparedness (OEP) office, which is led by the parish OEP director. Exceptions to this guideline are parishes with larger populations or more frequent hazard-induced economic loss. Depending on size of the parish population the OEP office can have a staff of 1 (OEP director) to as many as 10. Most OEP offices, however, are typically staffed with a director and one or two support staff. The average OEP office in Louisiana is staffed with 4 employees. OEP directors often have significant experience in their positions; however, OEP offices are generally obligated beyond their capacity, especially during emergencies. As a result, hazard mitigation planning often is of lower priority.

In addition, for specific tasks such as development of hazard mitigation plans and plan updates and documenting hazard mitigation projects for funding applications, some parishes have dedicated staff that can adequately handle these tasks, but many parishes and municipalities rely heavily on consultant support. GOHSEP also observed that in some cases, consultants are not well-versed in relevant programmatic and technical aspects due to the specialized nature of the work and the sporadic instances when this expertise is required, i.e., it is difficult for communities and consultants alike to obtain and maintain expertise in an area that is not consistently and regularly required. The nature of HMGP funding tied to specific events results in the inability to budget properly into the future, thus these types of personnel uncertainties result.

GIS data is widely accessible, but the capability to analyze, process, create, and maintain such data is not feasible for most OEP offices. These capabilities only exist in large OEP offices with significant parish support. Parishes with GIS departments reported coordinating with or accessing off-site GIS indicated a variety of locations where this data was housed. In some cases (e.g., Jefferson Parish), the parish maintains GIS data. In others (e.g., South Central Planning Development Commission or Northwest Louisiana Council of Governments), a regional entity coordinates and houses data. Other parishes utilize local universities as the repository of important GIS data.

Parishes and communities in Louisiana vary widely in their capacity for planning and regulation relevant to hazard mitigation. Some communities have a full range of implementation tools, while others have none. Tools include:

- Local hazard mitigation plans (HMPs), see COORDINATION OF LOCAL PLANNING Section
- Land-use planning and regulations, see POLICIES Section
- Floodplain management, see POLICIES Section

Floodplain management is discussed in more detail earlier in this section (see POLICIES). However, community participation in the CRS is noteworthy when discussing local capabilities. Thiry-nine Louisiana communities, accounting for approximately 80% of NFIP policies in the

State of Louisiana, participate in the Community Rating System (CRS). Participation in the CRS strengthens local capabilities by lowering flood insurance premiums for jurisdictions that exceed NFIP minimum requirements. Table 4.8 shows the communities in Louisiana that participate in CRS.

Table 4.8. CRS Participation in Louisiana (source: Cindy O'Neal, National Flood Insurance Program State Coordinator, DOTD, 2007).

COMMUNITY RATING SYSTEM PARTICIPATION BY PARISH	
Parish	CRS-Participating Jurisdiction
Acadia	Rayne
Ascension	Ascension Parish
	French Settlement
	Gonzales
	Sorrento
Beauregard	DeRidder
Bossier	Bossier City
Caddo	Caddo Parish
	Shreveport
Calcasieu	Calcasieu Parish
	Lake Charles
East Baton Rouge	Baker
	East Baton Rouge City/ Parish
	Zachary
Jefferson	Gretna
	Harahan
	Jefferson Parish
	Kenner
	Westwego
Lafayette	Carencro
Lincoln	Ruston
Livingston	Denham Springs
	Livingston Parish
	Walker
Orleans	New Orleans/Orleans Parish
Ouachita	Monroe

Community Rating System Participation by Parish	
Parish	CRS-Participating Jurisdiction
	Ouachita Parish
St. Charles	St. Charles Parish
St. James	Lutcher
	St. James Parish
St. John the Baptist	St. John Parish
St. Mary	Morgan City
St. Tammany	Mandeville
	Slidell
	St. Tammany Parish
Tangipahoa	Tangipahoa Parish
Terrebonne	Houma
	Terrebonne Parish
West Baton Rouge	West Baton Rouge Parish

Coordination of Local Planning

At the writing of this Plan Update, all 64 of Louisiana's parishes have approved plans. The State of Louisiana prioritizes funding for them, and has thus provided funding and technical assistance to local jurisdictions, ensuring that all localities have them approved. Overall, the state has approved all 93 jurisdictional Hazard Mitigation Plans: 64 parish-level, 14 local community, 9 university, 5 special district plans, and 1 Native American tribe plan. Going forward, due to budget constraints, the state will only fund plans at the parish level, but will still provide technical assistance to all jurisdictional plans. Those jurisdictions will be encouraged to apply for PDM grants.

Since the last Plan Update, the State of Louisiana (through GOHSEP) also organized and hosted a Hazard Mitigation Plan Implementation Workshop following Hurricane Isaac in 2012. The workshop facilitated a meeting between GOHSEP planners and plan owners from parishes and jurisdictions affected by Isaac. The State sent a questionnaire to participants requiring them to consult their particular plans prior to meeting. Through four-hour workshops, federal and state planners worked one-on-one with local plan owners to discuss flood risk changes, the status of projects and plan implementation, and funding of projects.

Based on interactions with local plan owners, the State found that most jurisdictions were not managing their plans on a routine basis, despite varying levels of ongoing mitigation activities.

Moreover, in many cases, local jurisdictions did not know the point of contact for their plan. The workshop was determined to be an important step in relating mitigation planning with mitigation action, and it further highlighted the need for more coordination among the levels of government involved in hazard mitigation throughout the state.

Thus, in order to continue to provide funding and technical assistance for new plans and updates, GOHSEP has committed to support the updating of FEMA-approved, DMA 2000-compliant, jurisdictional plans. Between October 2014 and December 2017, the 64 parish plans are due for updating and approval. Of these, three parishes have already secured PDM funding for their next plan. To prepare for the 61 other updates, GOHSEP has allocated funding from the Hurricane Isaac FEMA Hazard Mitigation Grant Program to support a three-year planning effort that will produce updated plans in a framework that facilitates future updates and provides a degree of uniformity across jurisdictions. Thus, all plans will use similar but appropriate data sources and data processing steps. This coordination allows accurate comparisons between local plans and the state plan for the first time, which will foster more consistent mitigation planning within the state. For the next Plan Update, state mitigation planners will review the local plans for FEMA compliance and collate useful information for inclusion. Useful information will be stored in a computer file and reviewed again in January 2016 at the beginning of the next update process. The timeline for delivery of plan updates will be driven by the schedule on which the jurisdictional plans expire, as indicated by Map 4.1.

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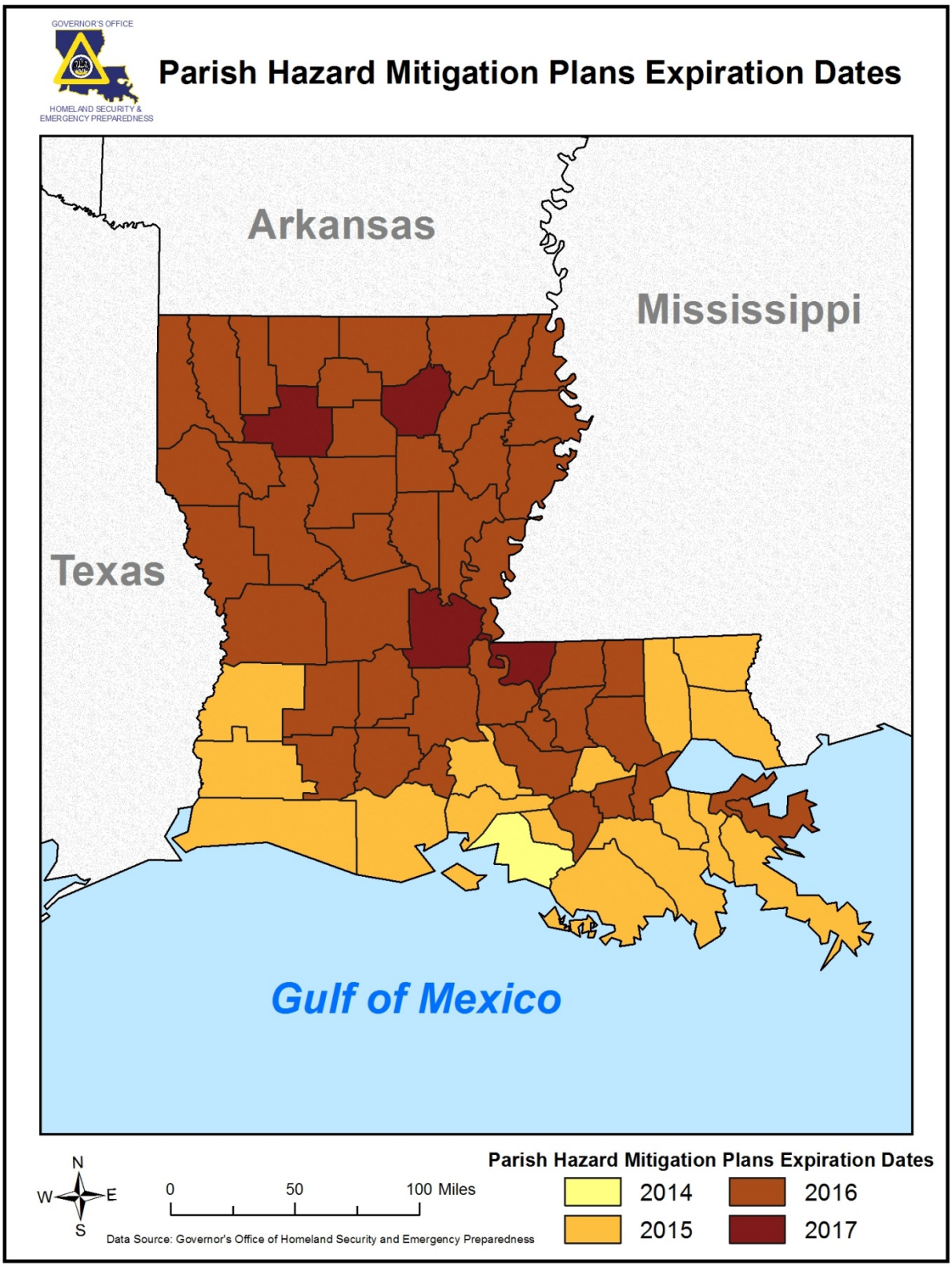

Map 4.1. Parish Hazard Mitigation Plan expirations (2014–2017).

Local Plan Review Process

The step-by-step plan review process that GOHSEP employs is as follows:

Step 1: The initial draft of a parish or municipal plan is sent to GOHSEP for review. GOHSEP staff develops and provides parish or municipal officials with comprehensive guidance for improving the format and content of the plan.

Step 2: Parish or municipal officials revise the plan in accordance with GOHSEP guidance, and re-submit the plan for GOHSEP review. With satisfactory revisions, the plan is forwarded with GOHSEP comments to FEMA Region VI.

Step 3: FEMA Region VI reviews the plan and forwards their comments to GOHSEP who then relays new comments back to the parish or municipality. GOHSEP continues to interface with parish or municipal officials to discuss and clarify all review comments on a point-by-point basis.

Step 4: The parish or municipality addresses both GOHSEP and FEMA Region VI comments and revises the plan.

Step 5: A revised draft is submitted to GOHSEP for review. GOHSEP staff evaluates revisions and forward to FEMA Region VI.

Step 6: FEMA Region VI reviews the revised plan, and if all comments were satisfactorily addressed, a letter stating that the plan is "approvable pending adoption" is mailed to GOHSEP and the parish or municipality. In cases where comments have not been addressed satisfactorily, the parish or municipality again addresses the comments and repeats the process.

Step 7: The plan is then formally adopted by all participating jurisdictions through a Resolution.

Step 8: The plan is officially approved by the Regional Director of FEMA Region VI.

The timeframe for this review process is approximately six months, not including the time spent by parishes or municipalities to revise their plans in response to GOHSEP and FEMA comments and is based on the following assumptions:

- Step 1 requires approximately 45 days for State review
- Step 2 requires an additional 45 days for FEMA
- After resubmitting the plan for final review, the state and FEMA are each given a 45-day review period

Prioritizing Parish and Municipal Assistance

IFR subsection 201.4(c)(4)(iii) states that the State Hazard Mitigation Plan must include "[c]riteria for prioritizing communities and local jurisdictions that would receive planning and project grants under available funding programs, which should include consideration for communities with:

- Highest risk

- Repetitive loss properties
- Most intense development pressures

Further, that for non-planning grants, a principal criterion for prioritizing grants shall be the extent to which benefits are maximized according to a cost benefit review of proposed projects and their associated costs.

The sub-sections below discuss these four criteria. Following these subsections is additional discussion of how the state intends to prioritize applications for funding future planning efforts. In all cases applicants must demonstrate that their risk is sufficient to merit grant funds, particularly when compared to the project cost, but there is often considerable uncertainty in risk determinations. For this and other reasons, the state considers a variety of factors in addition to risk and benefit-cost analysis in determining its priorities for mitigation grants.
In addition, as identified above, GOHSEP has established a policy of prioritizing funding for hazard mitigation planning efforts at the parish level in the future. This policy includes making sure that the interests of municipalities are protected and acknowledged as part of the process.

JURISDICTIONS WITH HIGHEST RISK

One of the primary purposes of this Plan Update is to identify the areas in Louisiana with the highest risk from natural and manmade hazards. As described in Section Five, the parishes in Louisiana have different levels of exposure and risk. Although the state does not have a formal system established to evaluate and prioritize potential mitigation projects on the basis of risk, this Plan Update is partly intended to introduce such criteria to the process. In general, the state will direct mitigation grant funds to the areas with the highest risk. However, in many cases, more localized risk assessments (possibly produced in the parish and municipal mitigation planning process), as well as risk assessments and benefit-cost analyses done in support of applications, may indicate areas with high risk outside the highest-risk parishes identified in this Plan Update.
The most worthwhile mitigation projects are a product of both the risk in a particular place and the effectiveness of a project. Although risk is clearly a good initial indicator of mitigation potential, the state will also carefully consider the effectiveness and cost of mitigation projects in determining funding priorities.

JURISDICTIONS WITH REPETITIVE LOSS PROPERTIES

There is currently no formal requirement that grants made through either the HMGP or Pre-Disaster Mitigation Competitive Grant Program (PDM-C) emphasize repetitive loss properties. However, in response to the Federal emphasis on reducing the burden that repetitive losses place on the National Flood Insurance Program (NFIP), the State presently considers the repetitive loss status of properties in determining the grants it will support (i.e., forward to

FEMA for consideration and funding), and will continue to do so as additional grant funds are available.

The FMA program mandates that grant funds are directed to NFIP repetitive loss properties, and the state will continue to comply with this requirement as it has since its inception. The Flood Insurance Reform Act of 2004, which was signed into law by the President on June 30, 2004, requires the NFIP to provide a disincentive to property owners to live in repetitively flooded areas. Rather than continue to rebuild, the program would provide repeatedly flooded homeowners assistance in either elevating or moving their homes away from floodwaters. Those who refuse mitigation assistance would pay premiums that will progressively approach the full actuarial costs for choosing to live in a risky area.
(This strategy to mitigate repetitive loss properties and especially severe repetitive loss properties contributes to meeting Louisiana's requirements for increased federal match on SRL and FMA grants under FEMA's Flood Mitigation Grants and Hazard Mitigation Planning Interim Rule, § 201.4(c)(3)(v).)

JURISDICTIONS WITH MOST INTENSE DEVELOPMENT PRESSURE

At the time this Plan Update was developed Louisiana had no formal process for evaluating potential mitigation grants relative to future development. As it develops a more rigorous review and recommendation process, the state will include development pressure as a potential review criterion. It is assumed that parish and municipal plans will provide some indication of the implications of future development per DMA 2000 requirements for local plans. The degree to which this information is included in the parish and municipal plans will determine the ability of GOHSEP and the SHMPC to make decisions based on these criteria. Although development pressure is clearly a potential factor in any risk determination, development that is undertaken in accordance with adequate building codes, land planning and floodplain management principles should in many cases be less risky than development that pre-dates these codes and principles. However, the state is aware that increased development does cause related increases in population, infrastructure, etc., and may in some cases have adverse impacts on existing areas. These factors will be carefully considered in additional reviews.

MAXIMIZING BENEFITS ACCORDING TO BENEFIT-COST REVIEW OF LOCAL PROJECTS

Regulations for FEMA's HMA grant program state that proposed mitigation projects must be cost effective. Under some pre-established conditions, certain projects may be exempt from this regulation, but in most cases a benefit-cost analysis is undertaken for projects either prior to being submitted to GOHSEP and FEMA for funding consideration, or during the grant evaluation process.

The PDM-C program, which was instituted in 2003/04, further emphasizes the role of cost-effectiveness by making the benefit-cost ratio the single most important criterion in project rating and evaluation. For the HMGP and FMA programs, the regulations require only that proposed mitigation projects are cost-effective, *not* that they are the *most* cost-effective projects that the state or FEMA is considering. However, the state generally believes that projects with high benefit cost ratios should get preference, all other aspects being equal. In most cases, grant applications are either accompanied by a benefit-cost analysis, or GOHSEP or FEMA performs one in accordance with FEMA and the Louisiana Office of Management and Budgets regulations. Projects that do not achieve the required 1.0 benefit-cost ratio, and are not exempted from benefit-cost analysis, are rejected from funding consideration. This is the case for all FEMA HMA grants.

PRIORITIZATION OF PARISHES TO RECEIVE HMGP FUNDING

The State Hazard Mitigation Officer shall submit recommendations to the Governor or his/her Designee for the use of available HMGP funds. These recommendations will include:

- Priority for use of funds, if any
- Allocation of funds to parishes based on their prorated share of damages as determined by the final damage assessment figures
- Allocations of available funds to State and Regional Agencies
- Use of all available initiative funds
- Other priority related issues as a result of the disaster

Funds will only be made available to those eligible applicants that have or is covered by a FEMA approved state or local mitigation plan. The parishes will submit eligible project applications to GOHSEP in prioritized order up to the amount of their allocation. Parishes are encouraged to submit more projects than their allocation in case several projects are deemed not eligible.